

In The Claims:

1. (Currently Amended) An apparatus comprising:

a plurality of head ends coupled to subscriber equipment via an access network, the head ends coupled to each other via an inter server network, each of the head ends comprising:

a server for configured to distributeing requested video assets to requesting subscriber user equipment via the an access network, the server comprising::;

a storage medium comprising having a primary storage partition configured to stor e frequently requested video assets and a secondary storage partition forconfigured to store infrequently requested video assets, the infrequently requested video assets being distributed amongst the secondary partitions of the head ends; and

a manager adaptedconfigured to manage migration of video assets, wherein the manager is configured to tracks asset request rates and threshold rates of respective video assets;

wherein the manager, in response to an infrequently requested video asset becoming frequently requested, is configured to select and transmit the frequently requested video asset to s at least one primary partition of at least one head endserver from the plurality of the head ends to store the frequently requested video asset and transmits the frequently requested video asset to the selected ones of the head ends for storage in the respective primary storage partitions of the ones of the head ends selected to store the frequently requested video asset;

wherein the manager, in response to a frequently requested video asset becoming infrequently requested, is configured to selects and transmit the infrequently requested video asset to at least one secondary partition of at least one of the head endserver to store the infrequently requested video asset and provides the infrequently requested video asset to the selected at least one of the head ends for storage in the respective

~~secondary storage partition of the at least one of the head ends selected to store the infrequently requested video asset.~~

2. (Currently Amended) The apparatus of claim 1, wherein:

the manager is ~~adapted~~configured to identify an infrequently requested video asset as becoming frequently requested when the asset request rate crosses above the threshold rate; and

the manager is ~~adapted~~configured to identify a frequently requested video asset as becoming infrequently requested when the asset request rate crosses below the threshold rate.

3. (Currently Amended) The apparatus of claim 2, wherein:

in response to receiving a request for a video asset ~~received~~ from requesting subscriberuser equipment, the manager is ~~adapted~~configured to control distribution of the requested video asset from one of the ~~head-end~~servers identified as storing the requested video asset to the requesting subscriberuser equipment.

4. (Currently Amended) The apparatus of claim 3, wherein the server is a local server and the apparatus is operatively connected to a remote server comprising a storage medium having a primary partition and a secondary partition, the apparatus further comprising:

a content manager ~~adapted~~configured to receive the request for the video asset and determine whether the requested video asset is stored locally in the storage medium of that head-end local server at which the video asset request is received or stored remotely in the storage medium of a different head-end the remote server;

a stream session manager ~~adapted~~configured to direct a server to distribute streams of video assets to subscriberuser equipment requesting the video assets; and

a content session manager ~~adapted~~configured to respond to video asset requests forwarded from managers of other ones of the head endsserver.

5. (Cancelled)

6. (Currently Amended) The apparatus of claim 4, wherein a content manager of ~~the~~  
local ~~head-endserver~~ at which a video asset request is received, in response to determining that a requested video asset is stored locally, is ~~adapted~~configured to notify the stream session manager to deliver the requested video asset to the local server for transmission by the local server to the requesting ~~subscriber~~user equipment via the access network.

7. (Currently Amended) The apparatus of claim 4, wherein the content manager of a local ~~head-endserver~~ at which a video asset request is received, in response to determining that a requested video asset is stored remotely in the storage of a remote ~~head-endserver~~, is ~~adapted~~configured to instruct the stream session manager of the local ~~head-endserver~~ to contact the content session manager of the remote ~~head-endserver~~.

8. (Currently Amended) The apparatus of claim 7, wherein the content session manager of the remote ~~head-endserver~~ is ~~adapted~~configured to identify the requested video asset in the storage of the remote ~~head-endserver~~, allocate bandwidth for transmitting the requested video asset, and, in response to a determination that the requested video asset is to be provided from the remote ~~head-endserver~~ to the requesting ~~subscriber~~user equipment via the local ~~head-endserver~~, notify the server of the remote ~~head-endserver~~ to transmit the requested video asset to the local ~~head-endserver~~ using the ~~inter-server~~access network.

Claims 9-18 (Cancelled)

19. (Currently Amended) A ~~computer-implemented~~ method of executing instructions on ~~one or more processing devices such that the one or more processing devices perform the following comprising:~~

determining an asset request rate for ~~each~~a plurality of video assets stored in each of a plurality of ~~head-end~~servers;

comparing the determined asset request rates with respective threshold rates of each the plurality of the video assets;

in response to an infrequently requested video asset becoming frequently requested, selecting and transmitting the frequently requested video asset to at least one primary partition of at least one server;

in response to a frequently requested video asset becoming infrequently requested, selecting and transmitting the infrequently requested video asset to at least one secondary partition of at least one server.

in response to an infrequently requested video asset stored on a secondary partition becoming a frequently requested video asset, selecting a plurality of the head ends to store the frequently requested video asset and migrating the video asset stored on the secondary storage partition to the selected ones of the head ends for storage in respective primary storage partitions of the ones of the head ends selected to store the frequently requested video asset; and

in response to a frequently requested video asset stored in a primary storage partition becoming an infrequently requested video asset, selecting one of the head ends to store the infrequently requested video asset and providing the video asset stored on the primary storage partition to the selected one of the head ends for storage in the respective secondary storage partition of the one of the head ends selected to store the infrequently requested video asset.

20. (Cancelled)

21. (Currently Amended) The method of claim 19, further comprising:

for each infrequently requested video asset that becomes a frequently requested video asset, removing the infrequently requested video asset from the secondary storage partition; and

for each frequently requested video asset that becomes an infrequently requested video asset, removing the infrequently requested video assets from each of the primary storage partitions of the head-end servers on which the frequently requested video asset was stored.

22. (Currently Amended) The method of claim 19, further comprising:
- receiving, at one of the ~~head-end servers~~, a request for a video asset;
- identifying a ~~head-endserver~~ storing the requested video asset, wherein the ~~head-endserver~~ comprises one of the local ~~head-endserver~~ at which the video asset request is received or one of the other ~~head-end servers~~ remote from the ~~head-endserver~~ at which the video asset request is received;
- causing the identified ~~head-endserver~~ storing said requested video asset to begin providing the requested video asset; and
- transmitting the requested video asset through an access network to the ~~subscriber user~~ equipment initiating the video asset request.
23. (Currently Amended) The method of claim 22, wherein, when the identified ~~head-endserver~~ is the local ~~head-endserver~~ coupled directly to the requesting ~~subscriber user~~ equipment, the local ~~head-endserver~~ provides the requested video asset to the requesting ~~subscriber user~~ equipment via the access network.
24. (Currently Amended) The method of claim 23, wherein, when the identified ~~head-endserver~~ is one of the remote ~~head-end servers~~, the local ~~head-endserver~~ requests the requested video asset from the remote ~~head-endserver~~ and the remote ~~head-endserver~~ provides the requested video asset to the local ~~head-endserver~~ via an inter-server network.
25. (Currently Amended) An apparatus comprising:
- a server configured to distribute requested video assets to a requesting ~~subscriber user~~ equipment;
- a storage medium having a primary storage partition for storing frequently requested video assets and a secondary storage partition for storing infrequently requested video assets selectively distributed amongst a plurality of ~~head-end servers~~ comprising at least a local first ~~head-endserver~~ and a remote second ~~head-endserver~~; and

a manager adapted~~configured~~ to control processing of video asset requests from the ~~subscriber~~user equipment and distribution of video assets to the requesting ~~subscriber~~user equipment, wherein the manager comprises:

a content manager adapted~~configured~~ to receive a request for a video asset from the requesting ~~subscriber~~user equipment and determine whether the requested video asset is stored locally in the storage of the first ~~head-end~~server or stored remotely in the storage of the remote second ~~head-end~~server;

a stream session manager adapted~~configured~~ to direct the server to distribute requested video assets to the requesting ~~subscriber~~user equipment; and

a content session manager adapted~~configured~~ to receive asset requests forwarded from the plurality of ~~head-end~~servers, identify and retrieve requested video assets requested by content managers the plurality of ~~head-end~~servers, and provide requested video assets to the plurality of ~~head-end~~servers,

wherein the manager, in response to an infrequently requested video asset becoming frequently requested, is configured to select and transmit the frequently requested video asset to at least one primary partition of at least one server;

wherein the manager, in response to a frequently requested video asset becoming infrequently requested, is configured to select and transmit the infrequently requested video asset to at least one secondary partition of at least one server.

wherein the manager, in response to an infrequently requested video asset becoming frequently requested, selects at least one head-end from the plurality of the head-ends to store the frequently requested video asset and transmits the frequently requested video asset to the selected head-ends for storage in the respective primary storage partitions of the head-ends selected to store the frequently requested video asset, wherein the manager, in response to a frequently requested video asset becoming

~~infrequently requested, selects at least one of the head-ends to store the infrequently requested video asset and provides the infrequently requested video asset to the selected at least one of the head-ends for storage in the respective secondary storage partition of the at least one of the head-ends selected to store the infrequently requested video asset.~~

26. (Cancelled)

27. (Currently Amended) The apparatus of claim 25, wherein the content manager, in response to determining that the requested video asset is stored locally, is ~~adapted~~configured to notify the stream session manager to deliver the requested video asset to a local server for transmission by the local server to the requesting ~~subscriber~~user equipment.

28. (Currently Amended) The apparatus of claim 25, wherein the content manager, in response to determining that the requested video asset is stored remotely in the storage of a different ~~head-endserver~~, is ~~adapted~~configured to instruct the stream session manager of a local ~~head-endserver~~ to contact the content session manager of the remote ~~head-endserver~~.

29. (Currently Amended) The apparatus of claim 28, wherein the content session manager of the remote ~~head-endserver~~ is ~~adapted~~configured to identify the requested video asset in the storage of the remote second ~~head-endserver~~ and allocates bandwidth for transmitting the requested video asset.

30. (Currently Amended) The apparatus of claim 29, wherein, in response to a determination that the requested video asset is to be provided from the remote second ~~head-endserver~~ to the requesting ~~subscriber~~user equipment via the first local ~~head-endserver~~, the content session manager of the remote ~~head-endserver~~ is ~~adapted~~configured to notify the server of the remote second ~~head-endserver~~ to transmit the requested video asset to the first local ~~head-endserver~~.

31. (Currently Amended) The apparatus of claim 30, wherein, in response to a determination that the server of the local first ~~head-endserver~~ is available to receive the requested video asset from the remote second ~~head-endserver~~, the server of the remote second ~~head-endserver~~ is adaptedconfigured to stream the requested video asset to the local first ~~head-endserver~~ over ~~the~~an inter-server network.

32. (Currently Amended) The apparatus of claim 31, wherein the server of the local first ~~head-endserver~~ is adaptedconfigured to receive the requested video asset from the server of the remote second ~~head-endserver~~, wherein the received video asset is stored in the storage of the local first ~~head-endserver~~.

33. (Currently Amended) The apparatus of claim 29, wherein, in response to a determination that the requested video asset is to be provided directly from the remote second ~~head-endserver~~ to the requesting subscriberuser equipment, the content session manager of the remote second ~~head-endserver~~ is adaptedconfigured to request the stream session manager of the remote second ~~head-endserver~~ to allocate bandwidth for providing the requested video asset to the requesting subscriberuser equipment.

34. (Currently Amended) The apparatus of claim 33, wherein the stream session manager of the remote second ~~head-endserver~~ is adaptedconfigured to notify the server of the remote second ~~head-endserver~~ to stream the requested video asset to the requesting subscriberuser equipment.